

Australian Bureau of Statistics

6220.0 - Persons Not in the Labour Force, Australia, Sep 2008

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Summary

Main Features

NOTES

ABOUT THIS PUBLICATION

This publication presents information about people aged 15 years and over who are not in the labour force: that is, neither employed nor unemployed. The data measure the potential supply of labour not reflected in employment and unemployment statistics, and measure the characteristics of that potential supply.

Statistics in this publication were obtained from the Persons Not in the Labour Force Survey, conducted throughout Australia in September 2008 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS).

Information collected in the survey includes details about whether people not in the labour force wanted to work, reasons why they were not actively looking for work, or were not available for work, and their main activity while not in the labour force.

Many people not in the labour force could be considered to have some attachment to the labour force. For example, they may want a job, but for a variety of reasons are not actively looking for work even though they are available to start a job. There is an expectation that many of these people could move into the labour force in the short term, or could do so if labour market conditions changed.

CHANGES IN THIS ISSUE

From September 2008, a change has been made to the category 'Home duties or caring for children' for the data item 'Main activity when not in the labour force'. The category has been split into 'Home duties' and 'Caring for children'. For more information about the data item 'Main activity when not in the labour force' see paragraphs 25-26 of the Explanatory Notes.

NOTES ABOUT THE ESTIMATES

Sample reductions in the Labour Force Survey, (see Information Paper: <u>Labour Force Survey Sample Design</u>, <u>Nov 2007</u> (Second edition) (cat. no. 6269.0)), resulted in the Persons Not in the Labour Force Survey sample being approximately one-third smaller than the sample size in September 2007.

ROUNDING

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Labour Market Section on Canberra (02) 6252 7206.

Conceptual framework

CONCEPTUAL FRAMEWORK

PERSONS NOT IN THE LABOUR FORCE AGED 15 YEARS AND OVER

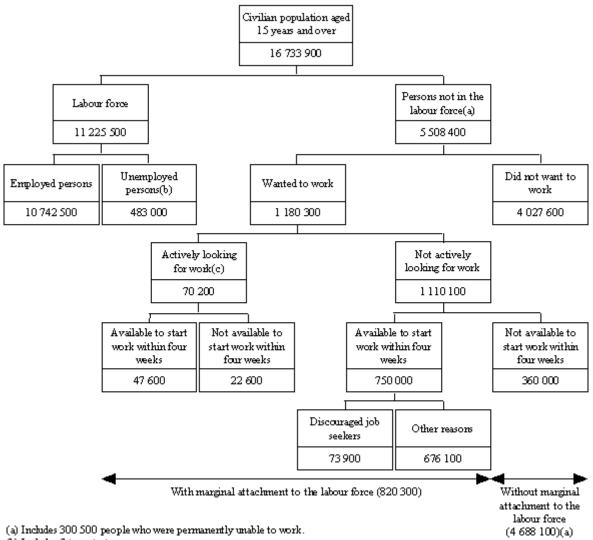
Persons not in the labour force can be divided into those who are marginally attached to the labour force, and those who are not. Persons who are marginally attached to the labour force satisfy some, but not all, of the criteria required to be classified as unemployed.

Persons not in the labour force are considered to be marginally attached to the labour force if they:

- wanted to work and were actively looking for work but were not available to start work in the reference week, or
- wanted to work and were not actively looking for work but were available to start work within four weeks.

Persons not in the labour force are not marginally attached to the labour force if they:

- did not want to work, or
- wanted to work but were not actively looking for work and were not available to start work within four weeks.



(b) Includes future starters.

(c) Refers to people who were actively looking for work, but were not available to start work in the reference week.

Summary of Findings

SUMMARY OF FINDINGS

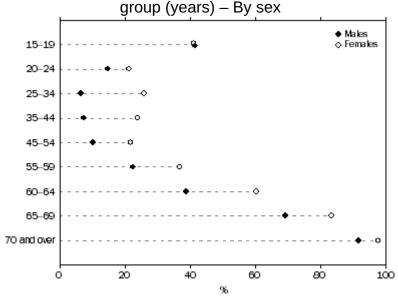
OVERVIEW

In September 2008, there were just over 5.5 million people aged 15 years and over who were not in the labour force. This represented 33% of the civilian population aged 15 years and over. Since September 2005, people aged 15 years and over who were not in the labour force comprise approximately one-third of the civilian population.

Of those people not in the labour force:

- 21% wanted to work (23% of women not in the labour force and 20% of men not in the labour force)
- 61% were women
- 30% were aged 70 years and over and a further 15% were aged 15–24 years.

PERSONS NOT IN THE LABOUR FORCE, Proportion of the civilian population – Age



The proportion of men and women who were not in the labour force varied according to age. In the 15–19 year age group, where there are high levels of participation in education, approximately 41% of both men and women were not in the labour force. In each of the remaining age groups there was a higher proportion of women than men not in the labour force. The proportion of men not in the labour force was lowest for those aged 25–34 years (7%) and 35–44 years (8%), and highest for those aged 70 years and over (92%). By comparison, the proportion of women not in the labour force was lowest for those aged 20–24 years (21%) and 45–54 years (22%) and highest for those aged 70 years and over (98%).

WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE

There were 820,300 people with marginal attachment to the labour force in September 2008, representing 15% of people not in the labour force.

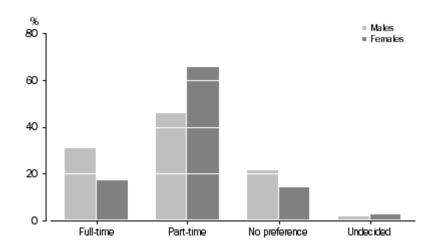
Of the 820,300 people with marginal attachment to the labour force:

- 516,100 (63%) were women
- 91% (750,000) were not actively looking for work
- 58% 'Intended to enter' the labour force within 12 months, and 22% 'Did not intend to enter' the labour force within 12 months. The remainder (20%) were undecided if they would enter the labour force in the next 12 months.

People with marginal attachment to the labour force tended to be younger. For example, more than one-quarter (29%) of those with marginal attachment to the labour force were aged 15–24 years. A further 19% were aged 25–34 years, and a futher 19% were aged 35–44 years.

The largest group of men with marginal attachment to the labour force was those aged 15–24 years (39%). This was followed by men aged 25–44 years (22%). By comparison, the largest group of women with marginal attachment to the labour force was those aged 25–44 years (47%). This was followed by women aged 15–24 years (24%).

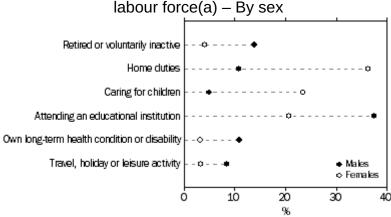
PERSONS WITH MARGINAL ATTACHMENT Full-time or part-time preference – By sex



Of women with marginal attachment to the labour force, 66% preferred part-time work, while 17% preferred full-time work. For men, 46% preferred part-time work and 31% preferred full-time work. The remainder had no preference, or were undecided.

Main activity when not in the labour force1

PERSONS WITH MARGINAL ATTACHMENT, Selected main activities when not in the



(a) See paragraphs 25-26 of the Explanatory Notes for more information.

For people with marginal attachment to the labour force, the most commonly reported main activity when not in the labour force was 'Attending an educational institution', 38% of men and 21% of women, followed by 'Home duties', 36% of women and 11% of men and 'Caring for children', 23% of women and 5% of men.

Time since last job

In September 2008, 663,400 (81%) of those with marginal attachment to the labour force had previously had a job. Of these, 35% reported that their last job was less than 12 months ago, and 22% reported their last job was between one and three years ago.

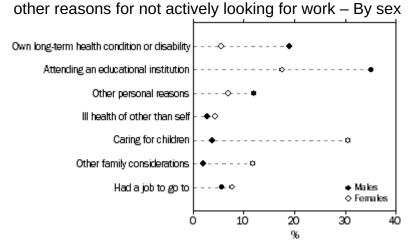
Almost 12% of people (49,600 women and 26,900 men) with marginal attachment to the labour force last had a job between 10 years and under 20 years ago. There were 33,800 people with marginal attachment to the labour force whose last job was more than 20 years ago.

Approximately 156,800 (19%) of people with marginal attachment to the labour force reported that they had never held a job lasting for 2 weeks or more.

Main reason for not actively looking for work - Other reasons

There were 676,100 (82% of people with marginal attachment to the labour force), other than discouraged job seekers, who wanted to work and were available to start work within four weeks but were not actively looking for work. Of these, 65% (439,900) were women and 35% (236,300) were men.

PERSONS NOT ACTIVELY LOOKING FOR WORK - OTHER REASONS, Selected main



The most commonly reported main reason for not actively looking for work for such men was 'Attending an educational institution' (35%), followed by 'Own long-term health condition or disability' (19%). By comparison, the most commonly reported main reason for women was 'Caring for children' (31%), followed by 'Attending an educational institution' (18%).

DISCOURAGED JOB SEEKERS

In September 2008 there were 73,900 discouraged job seekers aged 15 years and over. This compares with 76,600 discouraged job seekers in September 2007.

Characteristics of discouraged job seekers aged 15 years and over in September 2008 include:

- 48,800 were aged 55 years and over
- 39,300 were women
- 65,300 had worked before
- 11,200 had worked in the previous 12 months (21% of men and 10% of women)
- 20,700 had looked for work in the previous 12 months (31% of men and 25% of women)
- 24,800 intended to enter the labour force in the next 12 months (39% of men and 29% of women).

DISCOURAGED JOB SEEKERS, Selected main reasons for not actively looking for work – By sex



The main reason most commonly reported by discouraged job seekers for not actively looking for work was 'Considered too old by employers' (49%). This was followed by 'No jobs in locality or line of work' (18%) and 'Lacked necessary training, skills or experience' (17%). 'Considered too old by employers' was most commonly reported as the main reason by 49% of male and 50% of female discouraged job seekers. 'Lacked necessary schooling, training, skills, or experience' showed the greatest contrast between men and women who were discouraged job seekers (9.2% and 24% respectively) as the main reason for not actively looking for work.

WITHOUT MARGINAL ATTACHMENT TO THE LABOUR FORCE

In September 2008, there were 4.7 million people (1.9 million men and 2.8 million women) aged 15 years and over without marginal attachment to the labour force, comprising:

- 86% who reported that they 'Did not want to work', or 'Did not know' if they wanted to work
- 7.7% who 'Wanted to work but were not actively looking for work and were not available to start work within four weeks'
- 6.4% who were 'Permanently unable to work'.

Unlike the age distribution of those with marginal attachment, those without marginal attachment tended to be older. Almost half (48%) were aged 65 years and over (53% of men and 44% of women), and a further 18% were aged 55–64 years old.

Main activity when not in the labour force¹

Almost one-third (32%) of people without marginal attachment reported their main activity when not in the labour force as 'Retired or voluntarily inactive'. The next most common response was 'Home duties' (26%).

The most common response reported by men without marginal attachment was 'Retired or voluntarily inactive' (43%) followed by 'Own long-term health condition or disability' and 'Attending an educational institution' (both 17%). Women without marginal attachment most commonly reported 'Home duties' (38%) followed by 'Retired or voluntarily inactive' (24%) as their main activity when not in the labour force.

In September 2008, of those without marginal attachment to the labour force:

- 84% (3.9 million) reported they had previously had a job. Of these:
 - 56% reported that their last job was 10 years ago or more
 - 23% reported that their last job was 3 to under 10 years ago
- 16% (759,600) reported they had never had a job, of whom 62% were women.

END NOTE

1. See paragraphs 25–26 of the Explanatory Notes for more information.

About this Release

Persons not in the labour force are people who are neither employed nor unemployed in a particular reference period. They are divided into those with marginal attachment to the labour force and those without marginal attachment to the labour force, based on whether they wanted to work, whether they actively looked for work in the last 12 months and whether they were available for work.

The Persons Not in the Labour Force Survey collects a range of information about people not in the labour force, including the reasons why they were not actively looking for work or were not available for work, their main activity while not in the labour force, whether they have worked previously and if so, time since their last job, occupation in their last job and the reasons for ceasing their last job.

Estimates can be cross-classified by labour force demographics such as state, sex, marital status and birthplace.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

- 1 The statistics in this publication were compiled from data collected in the Persons Not in the Labour Force Survey that was conducted throughout Australia in September 2008 as a supplement to the monthly Labour Force Survey (LFS). Respondents to the LFS who were in scope of the supplementary survey were asked further questions.
- **2** The publication <u>Labour Force</u>, <u>Australia</u> (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS, which also apply to supplementary surveys. It also contains definitions of

demographic and labour force characteristics, and information about telephone interviewing relevant to both the monthly LFS and supplementary surveys.

CONCEPTS SOURCES AND METHODS

3 The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in <u>Labour Statistics</u>: <u>Concepts</u>, <u>Sources and Methods</u> (cat. no. 6102.0.55.001).

SCOPE

- **4** The scope of the LFS is restricted to people aged 15 years and over and excludes the following people:
 - members of the permanent defence forces
 - certain diplomatic personnel of overseas governments, customarily excluded from census and estimated populations
 - overseas residents in Australia
 - members of non-Australian defence forces (and their dependants).
- **5** Students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons are excluded from all supplementary surveys.
- **6** This supplementary survey was conducted in both urban and rural areas in all states and territories, but excluded approximately 120,000 people living in very remote parts of Australia who would otherwise have been within the scope of the survey. The exclusion of these people will have only a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where such people account for around 23% of the population.

COVERAGE

7 The estimates in this publication relate to people covered by the survey in September 2008. In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See <u>Labour Force</u>, <u>Australia</u> (cat. no. 6202.0) for more details.

SAMPLE SIZE

- **8** Supplementary surveys are not conducted on the full LFS sample. Since August 1994 the sample for supplementary surveys has been restricted to no more than seven-eighths of the LFS sample.
- **9** The LFS sample size in September 2008 was approximately one-third smaller than the sample size in September 2007. This is due to an 11% sample reduction that was implemented from November 2007 to June 2008 based on the 2006 sample design, and an additional 24% sample reduction implemented in July 2008. Detailed information about the

sample reduction is provided in Information Paper: <u>Labour Force Survey Sample Design</u>, <u>Nov 2007 (Second edition)</u> (cat. no. 6269.0).

- **10** The reduced sample will still be representative, with selections made across all parts of Australia.
- 11 The initial sample for the September 2008 LFS consisted of 27,469 private dwelling households and special dwelling units. Of the 21,787 private dwelling households and special dwelling units that remained in the survey after sample loss (e.g. households selected in the survey which had no residents in scope for the LFS, vacant or derelict dwellings and dwellings under construction), approximately 20,631 or 94.7% were fully responding to the Persons Not in the Labour Force Survey. The number of completed interviews obtained from these private dwelling households and special dwelling units (after taking into account scope, coverage and subsampling exclusions) was 11,149.

RELIABILITY OF THE ESTIMATES

12 Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information see the <u>Technical Note</u>.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and efficient processing procedures.

SEASONAL FACTORS

13 The estimates are based on information collected in the survey month, and, due to seasonal factors, may not be representative of other months of the year.

CLASSIFICATIONS USED

14 From 2006, occupation data are classified according to the <u>ANZSCO-Australian and New Zealand Standard Classification of Occupations</u>, First Edition, 2006 (cat. no. 1220.0). This new classification replaces the <u>ASCO-Australian Standard Classification of Occupations</u>, <u>Second Edition</u>, 1997 (cat. no. 1220.0). Data classified according to ASCO can be obtained on request.

15 Country of birth data are classified according to the <u>Standard Australian Classification of Countries (SACC)</u>, 1998 (cat. no. 1269.0).

COMPARABILITY OF TIME SERIES

16 Revisions are made to population benchmarks for the LFS after each five-yearly Census of Population and Housing. The last such revision was made in February 2004 to take account of the results of the 2001 Census of Population and Housing. Estimates from

supplementary surveys conducted from and including February 2004 are therefore based on revised population benchmarks.

- **17** Persons Not in the Labour Force Surveys conducted up to and including September 1987 included all people aged 15 years and over. From September 1988 to September 2004, the survey excluded all people aged 70 years and over.
- **18** The scope of the Persons Not in the Labour Force Survey was expanded in September 2005 to include all people aged 15 years and over. This change resulted in about 1.6 million extra people coming within the scope of this survey. Users need to exercise caution when comparing the estimates prior to 2005 with subsequent years. Direct comparisons should only be made where the populations are the same.
- **19** From September 2006 estimates of the number of people not in the labour force because they were caring for children, include people whose youngest child was aged 12 years and under. Previously questions relating to the care of children were only asked of people with children aged 11 years and under. This change was made to ensure consistency with other ABS surveys. Users need to exercise care when comparing the estimates in Table 9 of this publication with publications prior to September 2006.
- **20** Following a review of the Persons Not in the Labour Force Survey, a number of changes were implemented in the 2007 cycle. Users need to exercise caution when comparing estimates from 2007 with previous years data. The changes are documented below.
- 21 Between September 2001 and September 2006 people who reported in the LFS that they were 'permanently not intending to work' were not asked questions about wanting to work and looking for work in the Persons Not in the Labour Force Survey. As such, these people were classified as 'Did not want to work'. It is likely, however, that if they had been asked these questions, then some of these people may have been classified differently and may have been included in one of the 'wanted to work' categories. From September 2007, people who specified that they were 'permanently not intending to work' were asked questions about wanting to work and looking for work. As a result of this change, there has been a break in time series. Users need to exercise caution when comparing estimates from 2007 and 2008 with previous years data.
- **22** Prior to September 2007, the data items 'All reasons for not actively looking for work', 'Main reason for not actively looking for work' and 'Main reason not available to start work within four weeks' included the category 'own ill health, physical disability or pregnancy'. From September 2007, this category has been split into three separate categories; 'own short-term illness or injury', 'own long-term health condition or disability' and 'pregnancy'.
- 23 Prior to September 2007, the data items 'Reason for ceasing last job' and 'Main activity when not in the labour force' included the categories 'own ill-health or injury' and 'own disability or handicap'. From September 2007, these categories were renamed to ensure they were consistent with those in other data items and have been collected as 'own short-term illness or injury' and 'own long-term health condition or disability' respectively. While the way interviewers were instructed to code the responses to the relevant categories did not conceptually change, the renaming has caused a break in time series. Users need to exercise caution when comparing estimates from 2007 with previous years data.
- **24** From September 2007, a new data item, 'All reasons not available to start work within four weeks', has been collected in addition to 'Main reason not available to start work within four weeks'.
- 25 Prior to September 2008, the data item 'Main activity when not in the labour force'

included the category 'Home duties or caring for children'. From September 2008, this category has been split into two separate categories, 'Home duties' and 'Caring for children'. Care should be taken in interpreting the data in these categories because some people with young children indicated that 'Home duties' was their main activity when not in the labour force, rather than 'Caring for children'.

26 For the data item 'Main activity when not in the labour force' the categories presented are not necessarily mutually exclusive. For example, people one year may report that they were retired and be coded to 'Retired or voluntarily inactive', whereas in the following year people who are retired may report that their main activity when not in the labour force was home duties and be coded to 'Home duties'. The movement of data from one year to the next depend on how people interpret and respond to the question 'What has been your main activity since you last worked?'. While the categories have not conceptually changed, care should be taken when comparing estimates from 2008 with previous years' data.

COMPARABILITY WITH MONTHLY LFS STATISTICS

27 Due to differences in the scope and sample size of this supplementary survey and that of the LFS, the estimation procedure may lead to some small variations between labour force estimates from this survey and those from the LFS.

PREVIOUS SURVEYS

28 The Persons Not in the Labour Force Survey was first conducted in May 1975 and again in May 1977. From 1979 to 1987 the survey was collected twice a year (March and September). Since then it has been conducted annually in September. Results of previous surveys were published in:

- Persons Not in the Labour Force, Australia (cat. no. 6220.0)
- standard data service Persons Not in the Labour Force, Australia (cat. no. 6220.0.40.001) for 1994 and 1995 (available in hardcopy only).

NEXT SURVEY

29 The ABS plans to conduct this survey again in September 2009.

ACKNOWLEDGMENT

30 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

PRODUCTS AND SERVICES

Spreadsheets

31 Additional tables with time series data will be released in spreadsheet format. These

tables will be made available from the ABS website.

RELATED PUBLICATIONS

32 ABS publications which may be of interest include:

- Australian Labour Market Statistics (cat. no. 6105.0)
- Barriers and Incentives to Labour Force Participation, Australia (cat. no. 6239.0)
- <u>Job Search Experience, Australia (cat. no. 6222.0)</u>
- Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001)
- Underemployed Workers, Australia (cat. no. 6265.0)

33 Current publications and other products released by the ABS are available from the Statistics Page on the ABS website. The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

Glossary

GLOSSARY

Actively looking for work

People who were taking active steps to find work. Active steps comprise:

- registering with a Job Network employment agency
- contacting an employment agency
- contacting prospective employers
- answering a newspaper advertisement for a job
- checking Centrelink touch screens
- checking factory noticeboards
- advertising or tendering for work
- contacting friends or relatives.

Age of youngest child

Age of the youngest child, 12 years and under, in the household.

Available to start work within four weeks

People who were available to start work within four weeks or, for people with children aged 12 years and under, could start work within four weeks if suitable child care was available.

Did not want to work

People who were not classified as employed or unemployed who answered 'no' when asked if they would like a job.

Discouraged job seekers

People with marginal attachment to the labour force who wanted to work and were available to start work within the next four weeks but whose main reason for not actively looking for work was that they believed they would not find a job for any of the following reasons:

- considered to be too young by employers
- considered to be too old by employers
- lacked necessary schooling, training, skills or experience
- difficulties because of language or ethnic background
- no jobs in their locality or line of work
- no jobs at all.

Employed

People who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers);
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

Family

Two or more people, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering; and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households will, therefore, contain more than one family.

Family reasons for not actively looking for work

Includes ill health of someone other than themselves, caring for children and other family considerations.

Full-time or part-time preference

Whether they would prefer to work full-time or part-time regardless of whether they are able to start work.

Full-time or part-time status of last job

The perception of people of whether they worked full-time or part-time in their last job.

Future starters

People waiting to start, within four weeks of the end of the reference week, a new job that they have already obtained (and could have started in the reference week if the job had been available then). Under International Labour Organisation (ILO) guidelines these persons do not have to be actively looking for work to be classified as unemployed.

Had a job to go to

People who were waiting to start a job, but would not be starting within four weeks. Also includes people who had a job but, up to the end of the reference week, had been away from work without pay for four weeks or longer and had not been actively looking for work.

Intention to enter the labour force in the next 12 months

The intention of people to work or look for work in the 12 months following the interview.

Job

Any employment, full-time or part-time, lasting two weeks or more.

Job leavers

People who are classified as voluntarily ceasing their last job.

Job losers

People who are classified as involuntarily ceasing their last job.

Labour force

The civilian population can be split into two mutually exclusive groups: the labour force (employed and unemployed people) and persons not in the labour force.

Main activity when not in the labour force

The main activity of people who are not in the labour force since they last worked or looked for work (or in the last year if they haven't worked in that time).

Marginal attachment to the labour force

People who were not in the labour force in the reference week, wanted to work and:

- were actively looking for work but did not meet the availability criteria to be classified as unemployed; or
- were not actively looking for work but were available to start work within four weeks.

The criteria for determining those in the labour force are based on activity (i.e. working or looking for work) and availability to start work during the reference week. The criteria associated with marginal attachment to the labour force, in particular the concepts of wanting to work and reasons for not actively looking for work, are more subjective. Hence, the measurement against these criteria is affected by the respondent's own interpretation of

the concepts used. An individual respondent's interpretation may be affected by their work aspirations, as well as family, economic and other commitments.

Main English-speaking countries

The list of main English-speaking countries provided here is not an attempt to classify countries on the basis of whether or not English is the predominant or official language of each country. It is a list of the main countries from which Australia receives, or has received, significant numbers of overseas settlers who are likely to speak English. These countries comprise the United Kingdom, the Republic of Ireland, New Zealand, Canada, South Africa and the United States of America.

Occupation of last job

An occupation is a collection of jobs that are sufficiently similar in their title and tasks, skill level and skill specialisation which are grouped together for the purposes of classification. In this publication occupation refers to Major Group as defined by <u>ANZSCO-Australian and New Zealand Standard Classification of Occupations</u>, <u>First Edition</u>, <u>2006</u> (cat. no. 1220.0). Relates to persons who have had a job less than 20 years ago only.

Personal reasons for not actively looking for work

Includes 'own short-term illness or injury' or 'long-term health condition or disability', 'pregnancy', 'attending an educational institution', 'had no need to work', 'welfare payments or pension may be affected', and 'moved house or on holidays'.

Persons in the labour force

People who were classified as being in the labour force, that is, either employed or unemployed.

Persons not in the labour force

People who were not in the categories 'employed' or 'unemployed' as defined.

Persons not in the labour force because they were caring for children

People who wanted to work and:

- were not actively looking for work because they were caring for children, but were available to start work within four weeks; or
- were not actively looking for work and reported that they were not available to start work within four weeks because they were caring for children.

Reference week

The week preceding the week in which the interview was conducted.

Status in employment of last job

People who had a job in the last 20 years classified by whether they were employees, employers, own account workers, contributing family workers or unpaid voluntary workers in their last job.

Time since last job

The elapsed time since ceasing last job.

Unemployed

People aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

Wanted to work

People who were not classified as employed or unemployed and who answered 'yes' or 'maybe' when asked if they would like a job.

Abbreviations

ABBREVIATIONS

The following symbols and abbreviations are used in this publication:

'000 thousand

ABS Australian Bureau of Statistics

ANZSCO Australian and New Zealand Standard Classification of Occupations

ASCO Australian Standard Classification of Occupations

cat. no. Catalogue number

ILO International Labour Organization

LFS Labour Force Survey RSE relative standard error

SACC Standard Australian Classification of Countries

SE standard error

Populations and data items list (Appendix)

APPENDIX 1 POPULATIONS AND DATA ITEMS LIST

DATA AVAILABLE ON REQUEST

The ABS has a range of data available on request from the Persons Not in the Labour Force Survey. This section lists the data items and populations which relate to the survey. More detailed breakdowns of some data items may also be available on request.

The population(s) for a particular data item refers to the person in the survey to whom the data item relates.

For more information about ABS data available on request, contact Labour Market Statistics on Canberra (02)6252 7206, or by facsimile on (02)6252 7102, or by email to rabour.statistics@abs.gov.au.

Population 1:

Persons not in the labour force

Population 2:

Persons not in the labour force who wanted to work

Population 3:

Persons not in the labour force with marginal attachment to the labour force

Population 4:

Persons not in the labour force who wanted to work but were not actively looking for work and were available to start work within four weeks

Population 5:

Persons not in the labour force who were discouraged job seekers

Population 6:

Persons not in the labour force who wanted to work but were not actively looking for work and were not available to start work within four weeks

Population 7:

Persons not in the labour force because they were caring for children, who wanted to work but not actively looking for work

Population 8:

Persons not in the labour force who previously had a job

Population 9:

Persons not in the labour force without marginal attachment to the labour force

Population 10:

Persons not in the labour force whose last job was less than 20 years ago

Dat	a items	Populations			
1	State or territory of usual residence New South Wales Victoria Queensland South Australia Western Australia	All			
	Tasmania Northern Territory				
	Australian Capital Territory	_			
2	Area of usual residence	All			
	State capital city				
_	Balance of state/territory	A.II			
3	Region of usual residence	All			
	Standard labour force dissemination regions	• 11			
4	Sex	All			
	Males				
_	Females	All			
5	Marital status	All			
	Married Not married				
6	Relationship in household	All			
U	Family member	All			
	Husband, wife or partner				
	With dependants				
	Without dependants				
	Lone parent				
	With dependants				
	Without dependants				
	Dependent student Non-dependent child				
	Other family person				
	Non-family member				
	Lone person				
	Not living alone				
	Relationship not determined				
7A	Country of birth and period of arrival	All			
	Born in Australia				
	Born overseas				
	Arrived before 1971 Arrived 1971-1980				
	Arrived 1971-1980 Arrived 1981-1990				
	Arrived 1991-2000				
	Arrived 2001 to survey date				
7B	Country of birth (1)	All			
	Born in Australia				
	Born overseas				
	Born in main English-speaking countries				
	Born in other than main English-speaking countries				
7C	Country of birth (2)	All			
	Born in Australia				
	Born overseas				
	Oceania and Antarctica North-West Europe				
	Southern and Eastern Europe				

North Africa and the Middle East

	North-East Asia	
	Southern and Central Asia	
	Americas	
	Sub-Saharan Africa	
8	Age group (years)	All
	15-19	
	20-24	
	25-34	
	35-44	
	45-54	
	55-59	
	60-64	
	65-69	
	70 and over	
	Note: Age collected in single years	
9	Full-time study status (15-24 year olds)	All
	Were full-time students	
	Were not full-time students	
	Did not know	
10A	Persons not in the labour force summary variable	1, 8, 10
	With marginal attachment to the labour force	_, _,
	Wanted to work and were actively looking for work	
	Were available to start work within four weeks	
	Were not available to start work within four	
	weeks	
	Wanted to work but were not actively looking for work	
	and were available to start work within four weeks	
	Discouraged job seekers	
	Other	
	Without marginal attachment to the labour force	
	Wanted to work but were not actively looking for work	
	and were not available to start work within four weeks	
	Did not want to work	
	Permanently unable to work	
10B	Marginal attachment summary variable	3
100	Wanted to work and were actively looking for work	J
	Were available to start work within four weeks	
	Were not available to start work within four weeks	
	Wanted to work but were not actively looking for work and	
	were available to start work within four weeks	
	Discouraged job seekers	
	Other	
11	Whether wanted to work	1, 8, 10
	Wanted to work	1, 0, 10
	Might want to work	
	Did not want to work	
	Did not know	
12	Whether looked for work in the last 12 months	All
12	Had looked for work	ΛII
	Less than 5 weeks ago	
	5 weeks and less than 8 weeks ago 8 weeks and less than 13 weeks ago	
	13-52 weeks ago	
	13 weeks and less than 26 weeks ago 26 weeks and less than 39 weeks ago	
	39-52 weeks ago	
	Had not looked for work	
12		All
13	Main activity when not in the labour force	All
	Retired or voluntarily inactive	
	Home duties	
	Caring for children	
	Attending an educational institution	
	Own chart term illness or injury	
	Own short-term illness or injury	

South-East Asia

Travel, holiday or leisure activity Working in unpaid voluntary job Other ΑII 14A Time since last job Had a job Under 12 months 1 week and under 4 weeks 4 weeks and under 8 weeks 8 weeks and under 13 weeks 13 weeks and under 26 weeks 26 weeks and under 39 weeks 39 weeks and under 52 weeks 1 year and under 3 years 3 years and under 10 years 3 years and under 5 years 5 years and under 10 years 10 years or more 10 years and under 20 years 20 years or more Never had a job 14B Whether had a job in the last 20 years ΑII Had a job Last job less than 20 years ago Last job 20 or more years ago Never had a job 15 Reason for ceasing last job ΑII Had a job Job loser Retrenched, made redundant, employer went out of business, dismissed, no work was available Job was temporary or seasonal Own short-term illness or injury Own business closed down for economic reasons Job leaver Unsatisfactory work arrangements Retired, did not work any longer Own long-term health condition or disability Returned to studies Pregnancy or to have children To get married To look after family, house or someone else To have holidays, moved house or spouse transferred Own business closed down for other than economic reasons Other Never had a job ΑII 16 Occupation of last job Last job less than 20 years ago Managers **Professionals** Technicians and trades workers Community and personal service workers Clerical and administrative workers Sales workers Machinery operators and drivers Labourers Last job 20 or more years ago Never had a job ΑII 17A Status in employment of last job (1) Last job less than 20 years ago **Employer**

Looking after ill or disabled person

```
Own account worker
           Employee
           Contributing family worker
           Unpaid voluntary worker
      Last job 20 or more years ago
      Never had a job
                                                                 ΑII
17B Status in employment of last job (2)
      Last job less than 20 years ago
           Employee
           Own account worker/Employer
           Other
      Last job 20 or more years ago
      Never had a job
18 Full-time or part-time status of last job
                                                                 ΑII
      Last job less than 20 years ago
           Full-time
           Part-time
           Varied/Did not know
      Last job 20 or more years ago
      Never had a job
19A Intention to enter the labour force
                                                                 ΑII
      Intended to enter
      Might enter
      Did not intend to enter
      Did not know
      Permanently unable to work
      Not applicable (full-time student)
                                                                 ΑII
19B Intention to enter the labour force in the next 12 months
      Intended to enter
      Might enter
      Did not intend to enter
      Did not know
      Permanently unable to work
20 Full-time or part-time preference
                                                                 2-7
      Full-time
      Part-time
      No preference
      Undecided
21 Main reason for not actively looking for work
                                                                 4
      Wanted to work and were actively looking for work
           Were available to start work within four weeks
           Were not available to start work within four weeks
      Wanted to work but were not actively looking for work and
      were available to start work within
      four weeks
           Discouraged job seekers
                Considered too young by employers
                Considered too old by employers
                Lacked the necessary schooling, training, skills
                or experience
                Difficulties because of language or ethnic
                background
                No jobs in locality or line of work
                No jobs at all
           Other reasons
                Personal reasons
                      Own short-term illness or injury
                      Own long-term health condition or
                      disability
                      Pregnancy
                      Attending an educational institution
                      Had no need to work
                      Welfare payments or pension may be
                      affected
                      Moved house or holidays
```

```
Family reasons
                       Ill health of other than self
                       Caring for children
                             No child care in locality
                             No child care available at all
                             Cost or too expensive
                             Booked out or no places available
                             Children too young or too old
                             Prefers to look after children
                             Quality of child care unsuitable
                             Other reasons
                       Other family considerations
                 No jobs in suitable hours
                 Other reasons
                 Had a job to go to
                 Did not know
22 All reasons for not actively looking for work
                                                                   4
      Discouraged job seekers
       Considered too young by
       employers
       Considered too old by employers
       Lacked the necessary schooling,
       training, skills or experience
       Difficulties because of language or
       ethnic background
       No jobs in locality or line of work
       No jobs at all
    Other reasons
       Personal reasons
                Own short-term illness or
                injury
                Own long-term health
                condition or disability
                Pregnancy
                Attending an educational
                institution
                Had no need to work
                Welfare payments or
                pension may be affected
                Moved house or holidays
       Family reasons
                III health of other than self
                Caring for children
                Other family
                considerations
       No jobs in suitable hours
       Other reasons
       Had a job to go to
       Did not know
23 Main reason not working due to caring 7 for children
    No child care in locality
    No child care available at all
    Cost or too expensive
    Booked out or no places available
    Children too young or too old
    Prefers to look after children
    Quality of child care unsuitable
    Other child care reasons
24 Main reason not available to start work within four weeks
    Personal reasons
       Own short-term illness or injury
       Own long-term health condition or
       disability
       Pregnancy
```

Studying or returning to studies Moved house or holidays Family reasons Ill health of other than self Unable to find suitable child care Children too young or preferred to look after children On a job-related training program Other reasons 25 All reasons not available to start work within four weeks Personal reasons Own short-term illness or injury Own long-term health condition or disability Pregnancy Studying or returning to studies Moved house or holidays Family reasons III health of other than self Caring for children On a job-related training program Other reasons 7 26Age of youngest child 0-2 years 3-4 years 5 years 6-9 years 10-12 years 27Number of children 7 Aged 0-2 years Aged 3-4 years Aged 5 years Aged 6-9 years Aged 10-12 years

Supplementary surveys list (Appendix)

APPENDIX 2 SUPPLEMENTARY SURVEYS LIST

SUPPLEMENTARY SURVEYS

The Monthly Population Survey program and Multi-Purpose Household Survey program collect data on particular aspects of the labour force. The following is an historical list of labour surveys collected in these programs. Data from these surveys are available on request and can be obtained by contacting the ABS.

	cat. no.	Frequency	Latest issue
Monthly Population Supplementary Surveys			
Child Care, Australia	4402.0	Irregular	June 2005
Child Employment, Australia	6211.0	Irregular	June 2006
Education and Work, Australia	6227.0	Annual	May 2008
Employee Earnings, Benefits, and Trade Union Membership, Australia	6310.0	Annual	August 2007

Forms of Employment, Australia Job Search Experience, Australia Labour Force Experience, Australia	6359.0 6222.0 6206.0	Annual Annual Biennial	November 2007 July 2008 February 2007
Labour Force Experience, Australia Labour Force Status and Other Characteristics of Migrants, Australia	6250.0	Irregular	November 2007
Labour Mobility, Australia	6209.0	Biennial	February 2008
Locations of Work, Australia	6275.0	Irregular	November 2005
Multiple Jobholding, Australia(a)	6216.0	Irregular	August 1997
Persons Not in the Labour Force, Australia	6220.0	Annual	September 2008
Underemployed Workers, Australia	6265.0	Annual	September 2008
Working Time Arrangements, Australia(b)	6342.0	Irregular	November 2006
Multi-Purpose Household Surveys		•	
Barriers and Incentives to Labour Force Participation, Australia	6239.0	Biennial	2006-2007
Retirement and Retirement Intentions, Australia	6238.0	Biennial	2006-2007
Work-Related Injuries, Australia	6324.0	Irregular	2005-2006

⁽a) Latest data available on request July 2001.

Quality Declaration - Summary

QUALITY DECLARATION - SUMMARY

INSTITUTIONAL ENVIRONMENT

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

RELEVANCE

Persons not in the labour force are people who are neither employed nor unemployed in a particular reference period. They can be divided into two groups, those with marginal attachment to the labour force and those without marginal attachment to the labour force.

Persons are considered marginally attached to the labour force if they:

- want to work and are actively looking for work but are not available to start work in the reference week; or
- want to work and are not actively looking for work but are available to start work within four weeks.

Persons are considered not marginally attached to the labour force if they:

- did not want to work; or
- want to work, but were not actively looking for work and were not available to start work within four weeks; or
- were permanently unable to work.

The Persons Not in the Labour Force Survey collects a range of information about people not in the labour force, including the reasons why they were not actively looking for work or were not available for work, their main activity while not in the labour force, whether they have worked previously and if so, time since their last job, occupation in their last job and

⁽b) This product replaces the publication Working Arrangements, Australia (cat.no. 6342.0).

the reasons for ceasing their last job.

Numbers derived from Persons Not in the Labour Force Survey contribute to measures of the Extended labour force underutilisation rate.

TIMELINESS

The Persons Not in the Labour Force Survey is conducted annually during September as a supplement to the monthly Labour Force Survey. Results from this survey are released approximately six months after the completion of enumeration (i.e. during March) in the publication, <u>Persons Not in the Labour Force</u>, <u>Australia</u> (cat. no. 6220.0).

ACCURACY

Estimates from the Persons Not in the Labour Force Survey, including those presented in the publication, are subject to sampling and non-sampling errors.

The Persons Not in the Labour Force Survey was designed primarily to provide estimates at the Australia level. Broad estimates are available for State or territory of usual residence and State capital city/Balance of state/territory, though users should exercise caution when using estimates at this level because of the presence of high sampling errors.

Sample reductions in the Labour Force Survey, (see Information Paper: <u>Labour Force Survey Sample Design, Nov 2007</u> (Second edition) (cat. no. 6269.0)), resulted in the 2008 Persons Not in the Labour Force Survey sample being approximately one-third smaller than the sample size in September 2007. This has resulted in higher relative standard errors associated with these estimates.

COHERENCE

While the Labour Force Survey provides the official estimate of persons not in the labour force, the Persons Not in the Labour Force Survey provides further information on the characteristics of these people. Summary information is also collected in the Labour Force Survey on a quarterly basis, however this information is restricted to marginally attached people who had actively looked for work but were not available to start in the reference week but were available within four weeks. The Census of Population and Housing, and Special Social Surveys also provide summary information on persons not in the labour force, however the scope and methodology used differs from Persons Not in the Labour Force Survey.

The conceptual framework used for this survey is described in Chapter 7 of <u>Labour Statistics</u>: <u>Concepts, Sources and Methods</u> (cat. no. 6102.0.55.001). The statistics in this survey are comparable with other labour statistics produced by the ABS. The ABS definition of persons not in the labour force is consistent with the International Labour Organisation definition adopted in 1982.

The ABS conducted the first Persons Not in the Labour Force Survey in May 1975, and again in May 1977. From 1979 to 1987 the survey was collected twice a year (March and September). Since then it has been conducted annually in September.

Key changes made to Persons Not in the Labour Force Survey include:

- revision of population benchmarks
- changes in the scope of the survey
- revision of data items.

For more information on changes to the survey see Chapter 21.14 of <u>Labour Statistics</u>: <u>Concepts, Sources and Methods</u> (cat. no. 6102.0.55.001).

INTERPRETABILITY

The Persons Not in the Labour Force publication contains tables with footnoted data and a Summary of Findings to aid interpretation of the results of the survey. Detailed Explanatory Notes, a Technical Note and a Glossary are also included providing information on the terminology, classifications and other technical aspects associated with these statistics.

Further commentary is often available through articles and data published in other ABS products, including:

- Australian Labour Market Statistics (cat. no. 6105.0) refer to Appendix 2 for past articles.
- <u>Australian Social Trends</u> (cat. no. 4102.0) refer to the Cumulative list of articles for past articles
- Year Book, Australia (cat. no. 1301.0) refer to the 'Labour' chapter.

ACCESSIBILITY

<u>Persons Not in the Labour Force, Australia</u> (cat. no. 6220.0), released electronically via the ABS website as a PDF publication. Additional data may be available on request (subject to data quality). For a list of data items available see Appendix 2 of the publication. Note that detailed data can be subject to high relative standard errors, and in some cases, may result in data being confidentialised.

Additional tables in spreadsheet format with time series data are also available from the ABS website.

Labour underutilisation measures are published annually in the April issue of <u>Australian Labour Market Statistics</u> (cat. no. 6105.0), in <u>Measures of Australia's Progress: Summary Indicators (Edition 2)</u> (cat. no. 1383.0.55.001).

For further information about these or related statistics, contact the National Information and Referral Centre on 1300 135 070 or the Labour Market Section in Canberra on (02) 6252 7206.

Quality Declaration - Relevance

EMPLOYED

People aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind, in a
 job or business or on a farm (comprising employees, employers and own
 account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e.

contributing family workers); or

- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four-week period to the end of the reference week; or
 - o away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

UNEMPLOYED

People aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks
 up to the end of the reference week and were available for work in the reference
 week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

MARGINAL ATTACHMENT TO THE LABOUR FORCE

The criteria for determining those in the labour force are based on activity (i.e. working or looking for work) and availability to start work during the reference week. The criteria associated with marginal attachment to the labour force, in particular the concepts of wanting to work and reasons for not actively looking for work, are more subjective. Hence, the measurement against these criteria is affected by the respondent's own interpretation of the concepts used. An individual respondent's interpretation may be affected by their work aspirations, as well as family, economic and other commitments.

ACTIVELY LOOKING FOR WORK

People who were taking active steps to find work. Active steps comprise:

- registering with a Job Network employment agency
- contacting an employment agency
- contacting prospective employers
- answering a newspaper advertisement for a job
- checking Centrelink touch screens
- checking factory noticeboards
- advertising or tendering for work
- contacting friends or relatives.

AVAILABILITY TO START WORK WITHIN FOUR WEEKS

Refers to whether people were available to start work within four weeks or, for people with children aged 12 years and under, whether they could start work within four weeks if suitable child care was available.

Quality Declaration - Coherence

Key changes made to Persons Not in the Labour Force Survey include:

REVISION OF POPULATION BENCHMARKS

Revisions were made to population benchmarks for the Labour Force Survey and supplementary surveys in 2004 to take account of the 2001 Census of Population and Housing. Estimates from supplementary surveys conducted from and including February 2004 are based on the 2001 benchmarks. The 2008 PNILF estimates are based on the 2001 benchmarks.

CHANGES IN THE SCOPE OF THE SURVEY

Persons Not in the Labour Force Surveys conducted up to and including September 1987 included all people aged 15 years and over. From September 1988 to September 2004, the survey excluded all people aged 70 years and over.

The scope of the Persons Not in the Labour Force Survey was expanded in September 2005 to include all people aged 15 years and over. This change resulted in about 1.6 million extra people coming within the scope of this survey. Users need to exercise care when comparing the estimates prior to 2005 with subsequent years. Direct comparisons should only be made where the populations are the same.

CHANGE IN THE CLASSIFICATION OF PEOPLE 'PERMANENTLY NOT INTENDING TO WORK'

From September 2007, people who specified that they were 'permanently not intending to work' were asked questions about wanting to work and looking for work. However previously, between 2001 and 2006 this group were not asked further questions about looking for work and wanting to work in Persons Not in the Labour Force survey.

Between 2001 and 2006 people who reported in the LFS that they were 'permanently not intending to work' were not asked questions about wanting to work and looking for work in the Persons Not in the Labour Force Survey. As such, these people were classified as 'Did not want to work'. It is likely, however, that if they had been asked these questions, then some of these people may have been classified differently and may have been included in one of the 'wanted to work' categories. From September 2007, people who specified that they were 'permanently not intending to work' were asked questions about wanting to work and looking for work.

REVISION OF DATA ITEMS

From September 2006, estimates of the number of people not in the labour force because they were caring for children, include people whose youngest child was aged 12 years and

under. Previously questions relating to the care of children were only asked of people with children aged 11 years and under. This change was made to ensure consistency with other ABS surveys. Users need to exercise care when comparing the estimates in Table 10 of this publication with publications prior to September 2006.

Prior to September 2007, the data items 'All reasons for not actively looking for work', 'Main reason for not actively looking for work' and 'Main reason not available to start work within four weeks' included the category 'own ill health, physical disability or pregnancy'. From September 2007, this category has been split into three separate categories; 'own short-term illness or injury', 'own long-term health condition or disability' and 'pregnancy'.

Prior to September 2007, the data items 'Reason for ceasing last job' and 'Main activity when not in the labour force' included the categories 'own ill-health or injury' and 'own disability or handicap'. From September 2007, these categories were renamed to ensure they were consistent with those in other data items and have been collected as 'own short-term illness or injury' and 'own long-term health condition or disability' respectively. While the way interviewers were instructed to code the responses to the relevant categories did not conceptually change, the renaming has resulted in some movement between the responses.

From September 2007, a new data item, 'All reasons not available to start work within four weeks', has been collected in addition to 'Main reason not available to start work within four weeks'.

Prior to September 2008, the data item 'Main activity when not in the labour force' included the category 'Home duties or caring for children'. From September 2008, this category has been split into two separate categories, 'Home duties' and 'Caring for children'. Care should be taken in interpreting the data in these categories because some people with young children indicated that 'Home duties' was their main activity when not in the labour force, rather than 'Caring for children'.

For the data item 'Main activity when not in the labour force' the categories presented are not necessarily mutually exclusive. For example, people one year may report that they were retired and be coded to 'Retired or voluntarily inactive', whereas in the following year people who are retired may report that their main activity when not in the labour force was home duties and be coded to 'Home duties'. The movement of data from one year to the next depend on how people interpret and respond to the question 'What has been your main activity since you last worked?'. While the categories have not conceptually changed, care should be taken when comparing estimates from 2008 with previous years' data.

data quality (Technical Note)

TECHNICAL NOTE DATA QUALITY

INTRODUCTION

1 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three(67%) that a sample

estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

- **2** Due to space limitations, it is impractical to print the SE of each estimate in the publication. Instead, a table of SEs is provided to enable readers to determine the SE for an estimate from the size of that estimate (see table T1). The SE table is derived from a mathematical model, referred to as the 'SE model', which is created using data from a number of past Labour Force Surveys. It should be noted that the SE model only gives an approximate value for the SE for any particular estimate, since there is some minor variation between SEs for different estimates of the same size.
- **3** The LFS sample size in September 2008 was approximately one-third smaller than the sample size in September 2007. This is due to an 11% sample reduction that was implemented from November 2007 to June 2008 based on the 2006 sample design, and an additional 24% sample reduction implemented in July 2008. In combination, the two sample reductions are expected to increase the standard errors for estimates from the supplementary surveys by approximately 22% at the broad aggregate level, relative to the 2001 sample design (standard errors will vary at lower aggregate levels). Detailed information about the sample reduction is provided in <u>Information Paper: Labour Force Survey Sample Design, Nov 2007 (Second edition)</u> (cat. no. 6269.0).

CALCULATION OF STANDARD ERROR

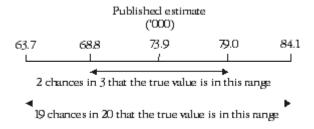
4 An example of the calculation and the use of SEs in relation to estimates of persons is as follows. Table 1 shows that the estimated number of people in Australia who were discouraged job seekers was 73,900. Since the estimate is between 50,000 and 100,000, table T1 shows that the SE for Australia will lie between 4,450 and 5,850 and can be approximated by interpolation using the following general formula:

SE of estimate
$$= tower SE + \left(\left(\frac{size\ of\ estimate - tower\ estimate}{upper\ estimate - tower\ estimate}\right) \times (upper\ SE - tower\ SE)\right)$$

$$= 4,450 + \left(\left(\frac{73,900 - 50,000}{100,000 - 50,000}\right) \times (5,850 - 4,450)\right)$$

$$= 5,100\ (rounded\ to\ the\ nearest\ 100)$$

5 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 68,800 to 79,000 and about 19 chances in 20 that the value will fall within the range 63,700 to 84,100. This example is illustrated in the following diagram.



6 In general, the size of the SE increases as the size of the estimate increases. Conversely, the RSE decreases as the size of the estimate increases. Very small estimates are thus

subject to such high RSEs that their value for most practical purposes is unreliable. In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% but less than or equal to 50% are preceded by an asterisk (e.g.*3.2) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of greater than 50%, preceded by a double asterisk (e.g.**0.4), are considered too unreliable for general use and should only be used to aggregate with other estimates to provide derived estimates with RSEs of less than 25%.

PROPORTIONS AND PERCENTAGES

7 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{X}{Y}\right) = \sqrt{\left[RSE(\chi)\right]^2 - \left[RSE(y)\right]^2}$$

8 Considering the example above, of the 73,900 people who were discouraged job seekers, 39,300 or 53.2% were females. The SE of 39,300 may be calculated by interpolation as 4,100. To convert this to an RSE we express the SE as a percentage of the estimate, or 4,100/39,300=10.4%. The SE for 73,900 was calculated previously as 5,100, which converted to an RSE is 5,100/73,900=6.9%. Applying the above formula, the RSE of the proportion is:

$$RSE = \sqrt{(10.4)^2 - (6.9)^2} = 7.8\%$$

9 Therefore, the SE for the proportion of discouraged job seekers who were females is 4.1 percentage points (=(53.2/100)x7.8). Therefore, there are about two chances in three that the proportion of females who were discouraged job seekers was between 49.1% and 57.3% and 19 chances in 20 that the proportion is within the range 45.0% to 61.4%.

DIFFERENCES

10 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

11 While this formula will only be exact for differences between separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.

STANDARD ERRORS

T1 STANDARD ERRORS OF ESTIMATES

									AUST.
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	SE RSE
Size of estimate (persons)	no.	no.	no.	no.	no.	no.	no.	no.	no. %

100	190	200	170	170	180	130	100	110	1301	30.0
200	300	310	270	250	280	190	140	180	2301	15.0
300	400	390	360	310	350	230	170	230	3101	.03.3
500	540	530	490	410	470	290	220	310	440	0.88
700	660	640	600	480	560	340	260	370	560	0.08
1,000	810	770	740	570	670	390	310	430	700	70.0
1,500	1 010	950	920	680	810	460	380	500	910	60.7
2,000	1 180	1 100	1 060	770	920	510	440	540	1 070	53.5
2,500	1 300	1 200	1 200	850	1 000	550	500	550	1 200	
3,000	1 450	1 350	1 300	900	1 100	600	550	600	1 350	45.0
3,500	1 550	1 450	1 400	950	1 150	600	600	600	1 450	
4,000	1 650	1 500	1 500	1 000	1 250	650	650	650	1 550	38.8
5,000	1 850	1 700	1 650	1 100	1 350	700	750	700	1 750	
7,000	2 100	1 950	1 900	1 250	1 500	800	950	850	2 050	29.3
10,000	2 450	2 250	2 150	1 450	1 700	950	1 300	1 100	2 400	24.0
15,000	2 900	2 600	2 500	1 700	2 000	1 200	1 850	1 450	2 850	19.0
20,000	3 200	2 900	2 750	1 950	2 300	1 400	2 350	1 700	3 200	
30,000	3 700	3 350	3 200	2 400	2 900	1 750	3 200	2 100	3 700	
40,000	4 050	3 700	3 600	2 800	3 450	2 050	3 950	2 350	4 100	
50,000	4 450	4 050	4 000	3 150	3 900	2 250	4 600	2 500	4 450	8.9
100,000	6 200	5 850	5 850	4 500	5 750	3 100	7 150	2 850	5 850	5.9
150,000	7 850	7 500	7 400	5 400	7 050	3 700	9 000	2 850	6 950	4.6
200,000	9 400	8 950	8 700	6 100	8 100	4 150			7 950	4.0
300,000	11 850	11 350	10 700	7 200	9 750	4 850			9 700	3.2
500,000	15 300	15 250	13 550	8 650	12 050	5 800			12 650	2.5
1,000,000	20 450	22 450	17 750	10 750	15 600				18 750	1.9
2,000,000	25 500	32 500	22 000	12 850	19 450				27 200	1.4
5,000,000	30 600	51 750	26 950						39 200	8.0
10,000,000	32 450	72 250							47 050	0.5

. . not applicable

T2 levels at which estimates have relative standard errors of 25% and 50%(a)

	NSW no.	Vic. no.	Qld no.	SA no.	WA no.	Tas. no.	NT no.	ACT no.	Aust. no.
RSE of 25%	9 700	8 300	7 900	4 200	5 600	2 100	1 500	2 200	9 400
RSE of 50%	2 800	2 400	2 300	1 300	1 700	700	400	800	2 300

(a) Refers to the number of people contributing to the estimate.

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